
U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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IRON ORE IN AUGUST 1996

U.S. mine production of iron ore in August was 1.42% higher than that of July, according to the U.S. Geological Survey. Shipments decreased by 2.6% and mine stocks decreased by 7.6%. Consumption and trade data for August will be included in a subsequent report.

Company Formed to Pursue Development of DRI

The Minnesota Iron and Steel Co. (MIS), Hibbing, MN, was formed to pursue the development of direct reduced iron (DRI) on the Mesabi Iron Range of northeast Minnesota. MIS is studying the feasibility of building a state-of-the-art taconite plant and DRI facility at the site of the Butler Taconite facility near Nashwauk, MN, which closed in 1985. MIS would reopen mines and the tailings basin formerly operated by Butler Taconite, initially employing several hundred workers. Plans call for the company to sell DRI to both integrated steel producers who make steel from taconite pellets and minimills who make steel from scrap. There could also be sales of pellets to the integrated steelmakers.¹

Taiwan Steelworks to Buy More Australian Ore

China Steel Corp., of Kaohsiung, Taiwan, has committed itself to buying significant additional quantities of Australian iron ore over a 10-year period. Hamersley Iron Ore Pty. Ltd. renewed its long-term contract with China Steel, agreeing to supply more than 32 million metric tons (Mt) beginning in April 1997, a 50% increase over the old contract. Over the same period, BHP Iron Ore Ltd. is to supply 40 Mt of ore, an increase of the same magnitude as Hamersley's additional allocation. Prices are to be based on the annual benchmarks negotiated between the Australian producers and the Japanese steel mills. The new contracts coincide with China Steel's Phase IV expansion program, which is expected to be commissioned in November 1996. Annual crude steel production is to rise from

5.6 to 8 Mt.²

These deals will help solidify Australia's increasingly dominant position as supplier of iron ore to Asia. Since 1990, three countries- Australia, Brazil, and India- provided 82.5% of the ore for the primary Asian iron ore importing countries of China, Japan, Korea, and Taiwan. Those importers, during this period, accounted for 97.0% of total Asian imports and 47.8% of world imports. Australia's share of this export market is the largest and fastest growing. During the 1990-95 period Australia's share was 40.1% compared to 26.1% and 16.3% for Brazil and India, respectively. Australia's exports to the four Asian importing countries rose by 33% during this period, while those of Brazil and India increased by 8% and 3%, respectively.

New Power Contract for Minntac

A long-term contract to supply the USX Minntac taconite operation with electric power was announced by USX and Minnesota Power on September 25, 1996. The agreement stipulates that Minnesota Power will remain Minntac's sole electricity supplier for the next 11 years. Duluth-based Minnesota Power is the principal supplier of electricity to Minnesota's iron ore mining industry. Minntac is the Nation's largest taconite producer and is one of the Nation's largest users of electrical power. The agreement became effective on September 1, 1996, subject to approval by the Minnesota Public Utilities Commission. The contract will lower USX's production costs by lowering energy costs and allow more flexibility to match USX's operating requirements.³

IISI Steel Consumption Forecast

A spokesman for the International Iron and Steel Institute (IISI) said that world steel consumption will reach a record level of 680 Mt in 1997 and should reach 714 Mt in 2000. Apparent consumption in the United States should remain at around 100

Mt as strong housing starts and automotive sales are keeping demand up. China's economy was expected to grow by just under 10% in 1996, but the steel market there is still burdened by excess stocks. The drawdown of stocks is now ending, so steel consumption should recover from 95 Mt this year to 100 Mt in 1997. India's steel consumption was expected to grow by more than 8% in 1996 and by a further 5% next year, taking it to 25 Mt. Consumption in Asia as a whole was expected to reach almost 300 Mt in 1996 and considerably exceed that in 1997 in spite of a further decline of 1% in Japan.

Apart from the ups and downs of the steel cycle, the IISI did not foresee much change in the level of steel consumption in

mature industrial markets, leaving Western Europe's demand at 138 Mt in 2000, North America's at 118 Mt, and Japan's at 80 Mt. The main prospects for growth are in the developing countries. The privatized and liberalized economies of South America were expected to grow by an average of 4.5%, reaching 28 Mt by 2000.⁴

¹Minnesota Iron and Steel Co. press release, Sept. 25, 1996.

²Metal Bulletin, No. 8119, Oct. 3, 1996, p. 24.

³Minnesota Power Press Release, Sept. 25, 1996, and personal communication.

⁴Metal Bulletin, No. 8119, Oct. 3, 1996, p. 21

TABLE 1
U.S. PRODUCTION AND SHIPMENTS OF IRON ORE, BY DISTRICTS 1/
(Exclusive of ore containing 5% or more manganese)

(Thousand metric tons)

Period	Lake Superior		Other U.S.		Total 2/	
	Monthly	Year to date	Monthly	Year to date	Monthly	Year to date
Production:						
1995:						
August	5,666	41,022	26	250	5,691	41,269
September	5,382	46,404	49	299	5,431	46,700
October	5,542	51,946	23	322	5,565	52,265
November	5,089	57,035	57	379	5,146	57,411
December	4,991	62,026	48	427	5,039	62,450
1996:						
January	4,232	4,232	35	35	4,267	4,267
February	4,217	8,449	25	60	4,242	8,509
March	4,801	13,250	23	83	4,824	13,333
April	4,668	17,918	22	105	4,690	18,023
May	5,479	23,397	20	125	5,500	23,522
June	5,128 r/	28,525 r/	22	147	5,150 r/	28,672 r/
July	5,771	34,296 r/	22	169	5,793	34,465 r/
August	5,752	40,048	119	288	5,871	40,336
Shipments:						
1995:						
August	6,463	37,517	26	285	6,489	37,803
September	5,963	43,480	30	315	5,993	43,796
October	5,754	49,234	37	352	5,791	49,587
November	5,632	54,866	44	396	5,676	55,263
December	5,596	60,462	39	435	5,635	60,898
1996:						
January	3,363	3,363	12	12	3,375	3,375
February	1,315	4,678	21	33	1,336	4,711
March	2,357	7,035	25	58	2,382	7,093
April	5,290	12,325	20	78	5,310	12,403
May	6,317	18,328	21	99	6,024	18,427
June	5,925 r/	24,253 r/	17	116	5,942 r/	24,369 r/
July	6,396	30,649 r/	29	145	6,424	30,793 r/
August	6,230	36,879	29	174	6,259	37,052

r/ Revised.

1/ Excludes byproduct ore.

2/ Data may not add to totals shown because of independent rounding.

TABLE 2
U.S. PRODUCTION, SHIPMENTS AND STOCKS OF IRON ORE IN AUGUST 1/
(Exclusive of ore containing 5% or more manganese)

(Thousand metric tons)

District	Production		Shipments 2/		Stocks 3/	
	1996	1995	1996	1995	1996	1995
Lake Superior:						
Michigan	1,340	1,392	1,262	1,266	2,063	2,713
Minnesota	4,412	4,273	4,968	5,197	5,086	3,428 r/
Other U.S.	119	26	29	26	113	70
Total 4/	5,871	5,691	6,259	6,489	7,263	6,211 r/

r/ Revised.

1/ Excludes byproduct ore.

2/ Includes rail and vessel.

3/ Includes mines, plants and loading docks.

4/ Data may not add to totals shown because of independent rounding.

TABLE 3
CANADA: SHIPMENTS OF IRON ORE

(Thousand dry metric tons)

Period	Newfoundland	Quebec	Ontario	British Columbia	Total 1/
1995:					
August	2,551	1,160	117	8	3,836
September	2,150	1,331	52	6	3,539
October	1,985	1,435	50	7	3,476
November	1,823	1,314	55	7	3,199
December	1,442	1,473	83	6	3,004
Year total	19,969	14,121	1,020	83	35,193
1996:					
January	477	686	42	7	1,212
February	646	927	46	7	1,626
March	444	743	49	7	1,242
April	2,075	741	36	7	2,858
May	1,343	1,927	45	8	3,324
June	1,653	405	43	6	2,107
July	1,308	995	38	7	2,348
August	NA	NA	NA	NA	NA

NA Not available.

1/ Data may not add to totals shown because of independent rounding.

Source: Natural Resources Canada.

TABLE 4
CONSUMPTION AND STOCKS OF IRON ORE AND AGGLOMERATES AND
BLAST FURNACE PRODUCTION OF HOT METAL AT U.S. IRON AND STEEL PLANTS

(Thousand metric tons)

Consumption of ores and agglomerates				
Consumption by source	July		Year to date	
	1996	1995	1996	1995
United States ores	4,857	4,694	33,328	34,172
Canadian ores	574	501	4,378	4,647
Foreign ores	560	742	4,723	4,569
Total 1/	5,991	5,937	42,427	43,388
Consumption by process				
Blast furnaces	5,464	5,426	38,411	39,816
Steel furnaces	6	4	46	37
Agglomerating plants 2/	486	506	3,925	3,531
Miscellaneous 3/	13	1	23	5
Total 1/	5,991	5,937	42,427	43,388
Stocks of ores and agglomerates				
Storage point	July 31			
	1996	1995		
Furnace yards	12,865	12,960		
Receiving/transfer docks	1,724	2,331		
Total consumer 1/	14,589	15,291		
Blast furnace production of hot metal				
	July		Year to date	
	1996	1995	1996	1995
Hot metal and pig iron produced in blast furnaces	4,104	4,152	29,242	29,490
No. of blast furnaces operating on the last day of the month	39	41	XX	XX

XX Not applicable.

1/ Data may not add to totals shown because of independent rounding.

2/ Iron ore and iron ore concentrates consumed in agglomerating plants not located at the mine site.

3/ Sold to nonreporting companies or used for purposes not listed.

TABLE 5
U.S. EXPORTS OF IRON ORE AND AGGLOMERATES, BY COUNTRY
OF DESTINATION AND TYPE

(Thousand metric tons)

Country of destination and type	1996				
	1st Quarter	2nd Quarter	May	June	July
Canada	833	1,288	766	364	941
Mexico	5	2	1	(1/)	(1/)
Other	1	5	3	2	1
Total 2/	840	1,295	770	366	942
Pellets	833	1,267	764	346	940
Other	7	28	6	20	3
Total 2/	840	1,295	770	366	942

1/ Less than 1/2 unit.

2/ Data may not add to totals shown because of independent rounding.

Source: Bureau of the Census.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE AND AGGLOMERATES,
BY COUNTRY AND TYPE
(Exclusive of ore containing 20% or more manganese)

Country of origin and type of product	July 1996		Year to date 1996			Year to date 1995 (thousand metric tons)
	Thousand metric tons	Value 1/ (thousand dollars)	Thousand metric tons	Value 1/ (thousand dollars)	Value 1/ (dollars per ton)	
Australia	67	475	379	2,568	6.78	385
Bahamas, The	--	--	186	4,897	26.33	57
Brazil	463	14,744	2,858	73,848	25.84	2,620
Canada	930	31,955	4,159	140,678	33.82	4,212
Chile	--	--	39	589	15.10	--
Finland	--	--	3	154	51.33	9
Indonesia	--	--	--	--	--	(2/)
Mauritania	--	--	209	3,743	17.91	179
Mexico	1	20	3	58	19.33	--
Norway	--	--	--	--	--	14
Peru	(2/)	25	43	476	11.07	45
Spain	--	--	11	181	16.45	--
Trinidad and Tobago	--	--	--	--	--	5
United Kingdom	--	--	--	--	--	2
Uruguay	--	--	24	591	24.63	--
Venezuela	112	4,309	1,254	45,994	36.68	1,454
Total 3/	1,573	51,528	9,170	273,777	29.86 4/	8,982
Concentrates	182	3,322	473	7,893	16.69	700
Coarse ores	7	1,771	512	19,056	37.22	1,081
Fine ores	212	3,104	2,268	37,896	16.71	2,254
Pellets	1,080	41,166	5,614	200,815	35.77	4,365
Briquettes	--	--	--	--	--	35
Other agglomerates	91	2,140	299	7,927	26.51	538
Roasted pyrites	(2/)	25	3	189	63.00	9
Total 3/	1,573	51,528	9,170	273,777	29.86 4/	8,982

1/ Customs value. Excludes international freight, insurance, and other c.i.f. charges.

2/ Less than 1/2 unit.

3/ Data may not add to totals shown because of independent rounding.

4/ Weighted average calculated from unrounded data by dividing total value by total tonnage.

Source: Bureau of the Census.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE AND AGGLOMERATES IN JULY 1996
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Country of origin	Type of product						Total 1/
	Concentrates	Coarse ores	Fine ores	Pellets	Briquettes and other agglomerates	Roasted pyrites	
Australia	--	--	67	--	--	--	67
Brazil	100	7	145	211	--	--	463
Canada	83	--	--	757	90	--	930
Mexico	--	--	--	--	1	--	1
Peru	--	--	--	--	--	(2/)	(2/)
Venezuela	--	--	--	112	--	--	112
Total 1/	182	7	212	1,080	91	(2/)	1,573

1/ Data may not add to totals shown because of independent rounding.

2/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF PELLETS, BY COUNTRY

Country of origin	July 1996		Year to date 1996			Year to date 1995
	Thousand metric tons	Value 1/ (thousand dollars)	Thousand metric tons	Value 1/ (thousand dollars)	Value 1/ (dollars per ton)	(thousand metric tons)
Brazil	211	8,959	1,044	38,988	37.34	512
Canada	757	27,898	3,794	131,915	34.77	3,267
Peru	--	--	--	--	--	36
Venezuela	112	4,309	775	29,912	38.60	550
Total 2/	1,080	41,166	5,614	200,815	35.77 3/	4,365

1/ Customs value. Excludes international freight, insurance, and other c.i.f. charges.

2/ Data may not add to totals shown because of independent rounding.

3/ Weighted average calculated from unrounded data by dividing total value by total tonnage.

Source: Bureau of the Census.

TABLE 9
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE AND AGGLOMERATES, BY CUSTOMS DISTRICT
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Customs district	July	Year to date	
	1996	1996	1995
Baltimore, MD (13)	315	2,428	2,285
Buffalo, NY (09)	--	(1/)	--
Charleston, SC (16)	--	287	267
Chicago, IL (39)	282	1,127	1,240
Cleveland, OH (41)	--	220	651
Detroit, MI (38)	329	921	191
Duluth, MN (36)	--	51	--
Houston - Galveston, TX (53)	--	21	7
Los Angeles, CA (27)	(1/)	(1/)	(1/)
Mobile, AL (19)	295	2,002	2,033
New Orleans, LA (20)	145	912	929
Nogales, AZ (26)	1	3	--
Ogdensburg, NY (07)	--	(1/)	(1/)
Philadelphia, PA (11)	206	1,186	1,365
Portland, ME (01)	--	(1/)	--
San Diego, CA (25)	--	--	9
San Juan, PR (49)	--	11	5
Total 2/	1,573	9,170	8,982

1/ Less than 1/2 unit.

2/ Data may not add to totals shown because of independent rounding.

Source: Bureau of the Census.

TABLE 10
U.S. IMPORTS FOR CONSUMPTION OF PELLETS, BY CUSTOMS DISTRICT

(Thousand metric tons)

Customs district	July 1996	Year to date	
		1996	1995
Baltimore, MD (13)	179	1,047	620
Charleston, SC (16)	--	146	142
Chicago, IL (39)	100	680	554
Cleveland, OH (41)	--	195	597
Detroit, MI (38)	307	899	190
Duluth, MN (36)	--	51	--
Houston - Galveston, TX (53)	--	13	7
Mobile, AL (19)	295	1,497	1,179
New Orleans, LA (20)	--	287	39
Philadelphia, PA (11)	199	799	1,037
Total 1/	1,080	5,614	4,365

1/ Data may not add to totals shown because of independent rounding.

Source: Bureau of the Census.